

MAC2311 Calculus 1 Spring 2008

Professor David Rollins

January 4, 2008

Contact Information

Email: drollins@mail.ucf.edu Telephone: **407-823-5239**

Office: MAP 103, MF 9:30-10:30, W 2:00-3:00, MW 4:15-4:45, (M 1:00-2:00 Excel Center (CC II - 223)) If these times don't work for you, set up an appointment either in class, by phone or email.

Course Information

Prerequisites: MAC1105 (College Algebra) and MAC1114 (College Trigonometry) or the equivalent.

Course Description: The ideas of limit, derivative and integral are introduced for functions of a single variable.

Topics: Chapter 1 - Functions and their representations; Chapter 2 - limit of a function, calculating limits, continuity, tangent lines; Chapter 3 - derivative of a function, product, quotient and chain rules, implicit differentiation, higher derivatives; Chapter 4 - applications, mean value theorem, curve sketching, optimization problems; Chapter 5 - areas and distance traveled, definite integral, fundamental theorem, substitution method; Chapter 6 - applications of integration, volumes, work done.

Text: Calculus, James Stewart, Fifth Edition

Calculator: Note that no calculators with symbolic capabilities may be used. **Only** basic scientific calculators are allowed on the tests.

Recitation: Monday 4:30-5:45 PM in MAP360, you will attend a weekly problem solving session. The TA will go over problems you are having difficulty with, collect and grade assigned homework and administer the weekly quizzes.

Homework: Each week a homework assignment will be assigned in class (or by the TA at Recitation) that will be turned in at the recitation session the following week. These will be graded and account for 5% of your grade. Your worst homework grade will be dropped.

These homework problems alone are not enough to gain mastery of the course, so you should do more problems on your own from the suggested homework problem list on page 2 of this syllabus. You should spend at least two hours outside for each hour in class, so about eight hours a week minimum.

Quizzes: A weekly quiz will be given in the recitation that is based on the assigned homework. These quizzes will count for 15% of your grade with each quiz having the same weight. Your worst quiz will be dropped.

Exams: There will be four in-class exams during the semester worth 50 points each, and a comprehensive final exam worth 100 points. The final exam, in addition to counting as the final, it is used as test 5 where it is worth 50 points. The best 4 out of 5 test scores plus the final exam score (a maximum of 300 points) will be used to calculate the exam part of your grade.

Grades: Homework 5%, Quizzes 15%, Exams 80%. Grades will be assigned as follows: 92-100 A, 90-91 A-, 88-89 B+, 82-87 B, 80-81 B-, 78-79 C+, 71-77 C, 69-70 C-, 0-68 F.

If a student has attended classes regularly, completed all homework, quizzes, tests and final exam, and does not qualify for all grades from C- through to A, the student would get a NC (no credit) grade.

Important Dates: Martin Luther King Day Jan. 21, Withdrawal deadline: Feb. 29, Spring Break Mar. 10-15, Last Day of Classes Apr. 21.

Note: All information in this syllabus is subject to change. Any changes will be given in writing.

Homework Problems

- 1.1: 2, 5-9, 16,19,23,25,27,37,39
- 1.2: 1,3,4,9,10
- 1.3: 3-5,9,13,15,17,23,31,35,37,41,45,47

- 2.1: 1,2,5,6
- 2.2: 4,5,6,9,13,15,17
- 2.3: 2,3-9 odd,11-29 odd,35-43 odd,46
- 2.5: 3-7, 10,11,15,16,34,37
- 2.6: 7-11, 15-18

- 3.1: 1-7 odd, 13-21 odd, 25,27,28
- 3.2: 2,4,5,8,10,11,19,21,25,28,29,35
- 3.3: 1-19 odd, 22,25-41 odd, 51,53,59,72,79,84
- 3.4: 1,2,7,9,13,15,20,21ab
- 3.5: 1-23 odd, 31,33,35-41 odd
- 3.6: 1,3, 7-39 odd, 43,51,53,57
- 3.7: 5-19 odd, 25,28,36
- 3.8: 2,3, 5-19 odd, 25,29,35,43,45
- 3.9: 1,2,5,7,8,10,12,14,15,21,28,29,31,33
- 3.10: 1,2,5,6,8,15,17,21,23,31,33,35,39,40,41

- 4.1: 3-17 odd, 23,25,29,33,37,39,43,45,47,51,53,55,63,64
- 4.2: 1,3,5,7,11,13,17,19,33
- 4.3: 1,3, 5-8, 11,13,15,23,25,27,29,33,35,39
- 4.4: 1,3,4,7,9,13,17,21,25,27,29
- 4.5: 1,9,13,19,21,25,31,33
- 4.7: 3,5,9,11,12,15,19,21,25,28,29,31,34,35
- 4.10 1,5,9,11,13,17,,21,25,27,29,37,39,42

- 5.1: 1,3,11,13,15
- 5.2: 1,5,7,9,17,19,21,25,33,35,37,39,49,53
- 5.3: 1,3,5,7,11-19 odd, 23,27,31,35,56
- 5.4: 1,3,5,7,19,21,23,25,29,31,33,37,43,47,53
- 5.5: 1,3,7,11,15,17,21,27,31,37,39,41,45,49

- 6.1: 1,3,5,6,9,11,15,19,21,24,29,41
- 6.2: 1-17 odd, 47,49,51,53,55,57,61
- 6.3: 1,3,5,9,11,15,17,19,21,23,37,39
- 6.5: 1,3,7,9,17,19,22